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Curtis Jones

 September 2001 **ACM SIGAPL APL Quote Quad**, Volume 32 Issue 1

 Full text available: [pdf\(190.11 KB\)](#) Additional Information: [full citation](#), [references](#)


2 [Direct haptic rendering of sculptured models](#)

Thomas V. Thompson, David E. Johnson, Elaine Cohen

 April 1997 **Proceedings of the 1997 symposium on Interactive 3D graphics**

 Full text available: [pdf\(1.32 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)


3 [Poster Session: Sketch- and constraint-based design of B-spline surfaces](#)

Paul Michalik, Dae Hyun Kim, Beat D. Bruderlin

 June 2002 **Proceedings of the seventh ACM symposium on Solid modeling and applications**

 Full text available: [pdf\(478.20 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)


This paper describes a sketch- and constraint-based approach to editing of free-form curves and surfaces. We present a simple touch-and-replace technique to edit 2D and 3D curves. We introduce auxiliary surfaces that allow for a reliable interpretation of users' pen-strokes in 3D and we present a new method for sketch-and constraint-based surface sculpting.

Keywords: constraints, curve, free-form sculpting, sketch, surface

4 [3DIVS: 3-dimensional immersive virtual sculpting](#)

Falko Kuester, Mark A. Duchaineau, Bernd Hamann, Kenneth I. Joy, Antonio E. Uva

 November 1999 **Proceedings of the 1999 workshop on new paradigms in information visualization and manipulation in conjunction with the eighth ACM international conference on Information and knowledge management**

 Full text available: [pdf\(1.60 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)


Virtual Environments (VEs) have the potential to revolutionize traditional product design by enabling the transition from conventional CAD to fully digital product development. The presented prototype system targets closing the "digital gap" as introduced by the need for

physical models such as clay models or mockups in the traditional product design and evaluation cycle. We describe a design environment that provides an intuitive human-machine interface for the c ...

Keywords: 3D sculpting, computer aided geometric design (CAGD), immersive environments, virtual reality

5 Smooth patching of refined triangulations

Jorg Peters

January 2001 **ACM Transactions on Graphics (TOG)**, Volume 20 Issue 1

Full text available:  pdf(495.03 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This paper presents a simple algorithm for associating a smooth, low-degree polynomial surface with triangulations whose extraordinary mesh nodes are separated by sufficiently many ordinary, 6-valent mesh nodes. Output surfaces are at least tangent continuous and are C2 sufficiently far away from extraordinary mesh nodes; they consist of three-sided Bézier patches of degree 4. In particular, the algorithm can be used to skin a mesh generated by a ...

6 Fast construction of accurate quaternion splines

Ravi Ramamoorthi, Alan H. Barr

August 1997 **Proceedings of the 24th annual conference on Computer graphics and interactive techniques**





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Keywords: Euler-Lagrange error functional, optimization, quaternions, splines

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2 Detail-preserving variational design of B-spline curves and surfaces
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4 The next generation MCAT: a realistic spline-based torso phantom
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